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D. MACLEAN, M. D.....Editor and Publisher
J. H. BUNDY, M. D.....Editor. | D. D. CROWLEY, M. D.,.....Editor

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ORIGINAL COMMUNICATIONS.

MUSCULAR ATROPHY.

BY M. HERTZSTEIN, M. D.,

Professor of Nervous Diseases and Lecturer on Physiology in the California Medical College.

The pathology of this affection appears to be still unsettled ; some think it to be a primary disease of the muscular substance, while others look for its seat in the gray matter of the anterior columns of the cord. Recent investigators hold the latter opinion, and strongly advise galvanization of the cord and cervical sympathetic nerve. We have two forms, the partial and the general ; the latter will most always prove fatal, while the partial, if not checked in time, will ultimately cause death. A most interesting case of the partial form came to me for treatment, a report of which may interest the readers of this Journal. The patient, a robust man of 45 years, stated that about twelve months ago he fell from a wagon and bruised his shoulder, but still continued to work on a farm till the pain increased to such an extent that he had to seek medical aid. The treatment consisting of local applications to the arm and shoulder, and tonics by the mouth. After six months treatment the case came under my observation, three months ago. The patient was very nervous, unable to grasp or hold any thing with his hand, there was a flattened hollow space between the first and second

metacarpal bones. The elbow joint was considerably enlarged, and there was considerable atrophy in the deltoid, biceps, and muscles which connect the scapula with the trunk. Faradic excitability of the interossei and hypohmar eminence was not diminished, but had almost disappeared in the extensor and flexor muscles. There was the usual fibrillary twitching, but no anaesthesia.

Applying a moderate induced current to the suffering muscles for several days, the patient complained of feeling worse under use of faradisation. I discontinued the treatment for a few days, and harpooned a piece of muscle, which on examining microscopically showed the diameter of the muscular fibres very little diminished; noticed very few fat globules, but found the transverse striæ had somewhat disappeared. The treatment was changed to galvanization; the continuous current of eighteen cells of Stohrer's battery was directed to the sympathetic, the anode to the upper cervical ganglion, the cathode to the lower ganglion, for eight minutes each time, and then the anode to the seventh cervical vertebræ, and cathode down the spine for five minutes more, increasing the current to twenty-five cells. After four days' treatment there was a marked improvement. the fibrillary twitching ceased, and the joint not so painful to the touch; the improvement from now on was rapid; after four weeks' treatment patient was able to hold light bodies in his hand, and could make use of his arm, yet in a very awkward manner. The muscles of arm and shoulder increased in bulk, the effusion at the elbow joint was absorbed, and there was a very marked improvement in patient's health, but more so since his speech improved, for he began stammering shortly after his fall. It was quite a task for him to concentrate his thoughts sufficiently to form a sentence, thus showing that a change in Brocas convolution must have taken place, for this investigator claims, and other pathologists have proven, that speech is located in the posterior part of the third frontal convolution, and that a lesion affecting this region produced that anomalous condition

known as aphasia, where the patient loses the memory of words, with perfect power of utterance. Yet this patient was able to write and read, but only with the greatest effort.

No other remedy was used except galvanization, and only after the six weeks' of treatment, administered Elix Quinia, Phosphor et Strich., teaspoonful three times per day. The patient, who had been under treatment nearly three months, made a perfect recovery with the exception of a peculiar awkward movement of the injured arm. The question which I asked myself in this peculiarly interesting case, is it possible that a fall could produce this condition, and if my diagnosis was not correct, would I have obtained the satisfactory results with galvanization?

POST-PARTUM HEMORRHAGE.

BY D. MAC LEAN, M. D.

This is one of the most alarming and serious complications of labor. In many cases it comes on suddenly, without warning, and terminates rapidly in the death of the patient. For this reason it is absolutely necessary that the physician should thoroughly understand the difficulty, and be prepared in emergencies to use the best remedies and measures for its control. He has no time to consult his authorities on the question, nor speculate on what is best to be done. Hesitation may be fatal. A life is at stake, and on his promptness and intelligence, may depend the result.

In the arrest of post-partum hemorrhage, the great object to be kept constantly in view, is to promote uterine contractions. All our efforts must be directed to this one direction, and if we fail in this, we fail in all.

The first thing to be done is to elevate the hips higher than the shoulders, and give full doses of ergot. In extreme cases, however, no reliance should be placed on ergot, as the patient might die before the drug could manifest its full effects on the system. Pressure should

be immediately applied to the uterus by grasping it with the hand. This is done with the object of producing contractions, while at the same time the mechanical pressure will, to a certain extent, control the hemorrhage. Should this not be sufficient, the hand should be introduced into the vagina and a careful examination made. If it is found that there is complete atony of the uterus the hand should be introduced within the cavity, all clots removed and a certain amount of irritation produced, to stimulate it to action.

In the majority of cases, we shall find these measures to be all that is necessary, but if they fail, we must still resort to other means. Perhaps one of the most convenient, and at the same time effectual, is hot water. It should be used at a temperature of 110° fahrenheit, or as hot as can be conveniently borne by the hand. After clots are removed, the nozzle of a Davidson, or ordinary syphon syringe should be carried up to the fundus, and the hot water injected rapidly and in large quantities into the uterus. Hot water acts not only as a hemostatic and excitant of uterine contractions, but as a general stimulant.

The intra uterine injection or application of vinegar, is a method that has its advocates, and with just reason. Vinegar does not act as a styptic, but like hot water, stimulates the uterus to contract. This agent possesses advantages over many other in that, the material can be found in almost any house. It may be injected with a syringe, or a sponge, or cloth dipped in vinegar, may be introduced into the uterus. The strongest table vinegar can be applied in this way, without danger of producing bad results.

But the most safe and reliable agent that has been brought to the notice of the profession in the past few years, in those class of cases, is that of tincture of iodine. This was originally used by Dr. Dupierris, of Havana, Cuba, in 1857. He used as an intra-uterine injection, half an ounce of the tincture of iodine, diluted with one ounce

of water. At that time his method failed to receive the attention it deserved. Dr. Trask, of Long Island, in 1875, in the *American Journal of Obstetrics*, again called attention to this agent, but not until Dr. Emmet, of New York, brought the matter prominently before the profession, did its use become general. Two ounces of the tincture diluted with an equal quantity of water, is usually used, and repeated if necessary. In severe cases, however, the undiluted tincture is frequently used with happy results.

Intra-uterine injections of a solution of the perchloride of iron, has been usually depended upon in extreme cases. And while there are no reasons to doubt their reliability and efficiency, it cannot be affirmed that they are always perfectly safe. The *Liquor Ferri Perchloride* is used in the proportion of one ounce to three ounces of water. The hemostatic effect of this agent is produced in three ways; by coagulating the blood in the mouths of the vessels; by its powerful astringency corrugating the surface of the uterus, and thereby constringing the vessels; and by its stimulant action, producing slight muscular contraction. The bad effect often produced, prevents the general use of this method. However reliable it may be in arresting the hemorrhage, it cannot be denied that death has frequently followed as a consequence. Autopsies have revealed the uterus filled with putrid decomposing masses, and even complete sloughing of the internal surface. We consider that it is no more reliable than iodine, and not near as safe. Iodine does not coagulate the blood, leaving clots to putrify, but simply stimulates the uterus to contract.

There are other agents and means that are used. Such as applications and injections of cold water, electricity, compression of the aorta, etc. But whatever course of treatment may be adopted, particular attention must be paid to the general condition of the patient, and indications met as presented. Perfect rest must be enjoined. The tendency to fainting must be combatted by free stimulation with brandy and other stimulants.

OBSTRUCTION OF THE BOWELS.

BY J. H. BUNDY, M. D.

Obstruction of the bowels severely taxes the skill of the most experienced, and while he may be able to definitely point out the character of the obstruction and its location, to remedy it, baffles him. Such cases are a dread to the young practitioner, who is as often baffled as to a proper diagnosis, as he is in the management of them afterwards. Intestinal obstruction most frequently met with is that due to intussusception, hernia or impaction of faeces, and to these I shall simply refer.

Symptoms.—Constipation is one of the early symptoms, and it is persistent; constant vomiting which after a little time becomes stercoraceous; early and marked prostration, skin cold and bathed with perspiration. hiccough, countenance distressed and shows great constitutional disturbance—if continued without relief, collapse and death. It is not an easy matter to ascertain the exact diagnosis. Local evidences, however, are often so distinctive as to lead us more or less correctly. To distinguish between impaction and intussusception, is perhaps the most difficult, at least that has been my experience, for in hernia the point of strangulation after a while, if not at first, becomes the seat of extreme pain and inflammation, and if it has been overlooked by the physician, the patient will call his attention to it sooner or later. It reminds me of the case of a lady who had obstruction of the bowels, said to be impaction. After existing ten days, the patient called attention to a swelling in left groin, and a strangulated inguinal hernia was discovered, when it was entirely too late to be remedied. In the first two, swellings or hardness of local points, point out where the trouble is, and where such are found without evidence of hernia, we may conclude it is one or the other. The only evidence that we have of its being intussusception is, the passage of the blood from the bowels, and this is no *evidence*, in fact an inference the probability of which is uncertain. Although the methods of diagnosis are unsatisfactory, still I believe

by thorough and carefully continued manipulations, we *can* become pretty well satisfied of the facts. The manipulation should be conducted with the ends of the fingers as firmly applied to the swelling or hardness as we would do in a hernia in performing taxis, carefully carrying the fingers down around the entire mass, and while doing so determine, if possible, if there is impaction or otherwise; and if it occurs near the umbilicus, as to whether there are bands of adhesion. I write this for the benefit of young practitioners, having been young once myself, at the same time not so *very old now*, but believe I do know *some* things that will be of benefit to them.

Here are some rules I would recommend to all young physicians when called upon in cases of obstruction of the bowels:

1st. Where there is persistent constipation with vomiting, whether stercoraceous or not, and you suspect obstruction, make the most thorough examination possible, to *detect hernia* of some character, if it exists.

2nd. By the most thorough manipulation endeavor to ascertain (if no hernia exists,) if it be due to impaction of *fæces* or intussusception. Never be guilty of trying to remedy either of these without first perfectly assuring yourself that hernia is not the cause. This has been done hundreds of times, with shame to the practitioner and death to the patient, and we cannot be too well guarded in this wise.

Treatment.—If the diagnosis is clearly made out, and the case one of impaction, the compound powder of jalap and senna, in 10-grain doses every 20 or 30 minutes is the most reliable of anything I have used. An ounce of boiling water should be added to each powder, and it should stand until cool enough to drink. The patient often throws them up, but if we are only persistent in giving them, enough will remain to have the desired effect, and there is *no danger* of giving too much. This should be assisted by very large injections of water, say from one to three or four gallons; and if necessary to accomplish

this by overcoming the efforts of the patient to force it back, put them well under the influence of chloroform, which will have a double effect in these cases, by not only overcoming the effort of the patient, but by *thoroughly relaxing* the intestinal structures at the seat of impaction as well as elsewhere. A small towel should be wetted and rolled up in such a manner that it may be wound around the base of the nozzle of the syringe (using a Mattison or Davidson, and the long or female nozzle for this purpose), so that when introduced the point wound will prevent the escape of the fluid backward. I usually wait an hour or two after commencing with the powders, before I proceed to give the injection. If you do not succeed by the use of the first injection, they should be repeated every two hours until you do succeed. I have been obliged to operate the third time before succeeding. Where impaction is the cause of obstruction, the above treatment cannot, it seems to me, fail of success.

If intussusception be the cause, excessive inflation of the bowels with air, using a pair of common hand bellows, and if necessary, chloroform the patient, as in the other case. I have succeeded in two cases of intussusception, which were such without doubt, by this mode of procedure. Cathartics may be tried, but they should not be persisted in if, after fair trial, they do not succeed. Injection of lobelia may be tried, using large quantities of water and enough of the drug to produce thorough relaxation. Whichever of the remedies are used, great assistance may be given their use by thorough, but careful manipulation and kneading of the abdomen in the region of the trouble. If, after thorough trial and repetition, success does not obtain, it will have to be left to nature, unless a chance of success may promise from an operation which would hardly be undertaken by the young practitioner. In this case as in obstructions from hernia, change of posture may greatly enhance the chances of success—standing the patient on the feet, then on the head for a few moments.

If the trouble results from hernia (Inguinal) as it often does, an early diagnosis is essential, and it should be reduced by taxis if possible. If difficulty is encountered, thoroughly foment the part with lobelia until well relaxed, swing patient up by the feet and make a thorough attempt in this position. Should these means fail, an operation becomes necessary, and any practitioner who has Howe on Surgery should, or need not be afraid to attempt it if he understands the anatomy of the parts. Prof. Howe has, in his work on surgery, made the steps in the operation *so plain* that it seems to me any novice might undertake the operation. Obstruction of the bowels from whatever cause, are always to be considered dangerous; but while attended with danger, many of them may be successfully treated. Close attention in these cases should always be given, and the young practitioner should never despair as long as there is life. Again, I say, when called to such cases, first satisfy yourself that it is not from hernia; second, as to whether it is from intussusception or impaction, and go ahead. If the rules and treatment I have given are carefully observed you will succeed where success is attainable.

CASES IN PRACTICE.

BY M. HERZSHEIN, S. F.

Professor of Nervous Diseases and Lecturer on Physiology in the California Medical College.

SPINAL CURVATURE. Miss S., æt. 23, has been ill for several years, and is very nervous, has no appetite, and continual vertigo, also suffers with asthma and chronic bronchitis, cannot sit erect, and with difficulty is able to walk, which is due to the curvature for which, patient informed me, plaster of Paris and splints had been used by her former physicians, which only aggravated her condition. Patient came for treatment May 20. Laryngoscopic examination showed a thickening of the cords with pharyngeal and laryngeal irritation. The spine showed a lateral cur-

vature, and there was anasthesia of left arm and leg. Treatment May 20th. Rx. fld. ext. grnid robust 3 iii cimi-cifuga rac. 3 ii nux vom. 3 i ferro pyrophos gr. xx. elix. cinchonæ comp. qs, 3 iv. M. S. teaspoonful every two hours. Galvanization was applied pos. pole on pneumogastric nerve, and neg. on epigastrium for three minutes, and faradisation on the spine, from three to five minutes each day for one week. June 2, patient is improving, slept well every night since electricity has been used; appetite better; feels stronger at extremities, and had only one attack of asthma.

June 8. Continue the use of electricity as before: patient very much better, is able to walk several blocks, curvature greatly improved; no more asthma; no vertigo, but still anaesthesia of arm and leg.

Gave an inunction of quinia and xanthons to the suffering limbs, and apply friction and electricity every other day, continue electrical treatment as before, but change Rx. to elix phosp. et. quinia in full doses. June 14, improvement since the 8th is very marked; and patient complains of nothing except a slight numbness of the hand; curvature is improving very rapidly, and all other symptoms have disappeared. June 24. No more anaesthesia, and patient walks to my office, which is nearly one-third of a mile from her residence. Continue last Rx, and use electricity three times per week as before. July 1. Continual improvement; treatment as before. July 25. Curvature has disappeared; patient looks well and gained while under treatment, eighteen pounds in weight. Aug. 20th, discharged cured.

REMARKS;—Spinal distortion often results from organic affections, or injuries of the vertebral column, or from osseous malformation, as in rickets and scrofula; but most are the result of muscular debility. In no class of diseases has medical practice proved itself more helpless to cure than in this. Unfortunate cases; especially females, are tortured; have their backs blistered, burned, scarred, cauterized, leeches, and cupped with the view of

counter irritating a spinal disease, when the only trouble is nervous prostration or muscular debility. In this condition the vertebral column does not sustain itself erect, therefore it bends or dips forward or to one side, and *no* artificial support or drug will remedy the evil, and nothing but tone to the nerves and muscles is what is needed. If we consider that the small of the back is the center of the whole muscular system, and that no less than several hundred muscles are concerned in the complicated movements of the vertebral column, we can easily see and understand how relaxed a weakly condition must be, suffering from a distortion of the spine. "Angular curvatures," which causes paralysis of the lower extremities, are seldom cured, but the lateral can always be relieved. I have cured such from ten to fifteen years' standing. I rely principally on a careful treatment with the induced and constant current.

CASE. I.—Chronic Complications. Mrs. A., æt. 45, came for treatment May 15th. Chronic bronchitis with asthma recurring every evening; hard racking cough; no appetite; continual nasal discharge and pain in left lung; evil forebodings; cannot sleep and is very irritable. Temperature $103\frac{1}{2}$, pulse 110. Treatment, R. Yerba Santa fl. ext., grind robusto aa. ʒii , tinct. aconit. gtt, x sang. canad ʒiii , syr. prun. virg. qs. ʒvi ., teaspoonful every two hours.

May 16. No more pain in left lung, and no asthma. Temperature 100. Pulse 85.

May 17. Temperature normal. Pulse 85.

May 18. No asthma, no cough, but great prostration. Take medicine four times per day, and quinia sulph gr. ii three times a day before meals.

May 19. Much improved, patient slept well and looks bright.

May 20. Continual improvement; continue remedies as before. Saw patient June 1st, and was improved; all bad symptoms had disappeared; patient is feeling well and gained in flesh.

The rapid recovery of this case is due to the Grind. and Yerba Santa, for which discovery the profession is greatly indebted to Dr. Bundy, who, by his experiments with California remedies has enriched our Materia Medica with many invaluable remedies.

EPILEPSY.

[Continued from Page 303.]

BY J. H. BUNDY, M. D. OAKLAND, CAL.

Then, also, by the side of patients whose paroxysms of delirium return at very short intervals, you will see others whose mind is perfectly sound, and is disturbed only by very few attacks, separated by very long intervals, or, perhaps, by a single attack only throughout their whole life. The conditions most favorable for the production of delirium, are as follows: When the disease has been suspended for a long time, it often bursts out with renewed intensity, in both the delirious and the convulsive forms. When the paroxysms recur at very short intervals, in a series, and seemingly one upon the other, delirium frequently sets in, especially when the seizures are imperfect, incomplete. In fact, delirium chiefly occurs as a consequence of epileptic attacks recurring at short intervals, after a prolonged suspension of the disease. Hereditary taint has a great influence on the production of epilepsy; also, intermarriages are a frequent cause of mental diseases. Nearly all writers on mental diseases have pointed out that in many cases idiocy and mental alienation have resulted from unions between near relations—and epilepsy is another—of these results. The *treatment* of epilepsy is anything but satisfactory. Could we understand the true pathology of each case individually, our success would be largely increased. I have permanently cured one case with nitrate of silver; at least nine years have passed since and no symptoms of a return of the disease. Another case was to a great extent controlled by it, yet the paroxysms though but slight, recur once or

twice each year. Numerous other cases have received no benefit whatever from its use. Again, two cases have been arrested, and to all appearances cured, by the use of the chloride of gold and sodæ; in others it has given no relief. The following has generally proven the most satisfactory in cases where there was general plethora. R Tr. gelseminum (from green root) ʒss; bromide of potassium or ammonium ʒss; Tr. lobelia sem. ʒiiss; fld. ext. viburnum op. ʒi; syr. simp qs. ad ʒiv. M. S. teaspoonful three times daily. The diet should be non-stimulating, but nutritious and easy of digestion. Cabbage, beets, turnips, pickles, and greasy foods are to be avoided. Where the patient has a pale, leaden appearance of the skin, the nitrate of silver in $\frac{1}{4}$ gr. doses three times daily in pill form, alternated with $\frac{1}{4}$ gr. doses of alc. ext. of belladonna seems to be the best treatment. Where the case is complicated with, or perhaps the result of syphilis, then the chloride of gold and sodæ in full doses alternated with a good fld. ext. of kalmia lat. is the best treatment I have found. The list of remedies might be largely increased, but a few well selected remedies will give better satisfaction and better results, if well directed pathologically, than a great number given at random. Berberis aquifolium answers a *good* purpose in the syphilitic form, in full doses, alternated with the chloride of gold and sodæ in usual doses. In the hysterical, or vertiginous form affecting females, which makes its appearance monthly, the symptoms being a partial loss of consciousness, or something like swooning, lasting from a few seconds to a half hour or more, is often relieved if not cured by the following: Bromide of ammonium ʒss; fld. ext. viburnum op. ʒiii; syr. simp. qs. ad. ʒiv. M, sig. teaspoonful three times daily, to be given up to the time of the expected attack, the last dose given at bed-time, then four times daily, until the patient is carried over the period, when the former dose may be resumed. This has worked well in my hands in these cases, but it must be continued for three or four months or longer if necessary to perform a cure, or if it promises to prove

curative. If the patient menstruates and suffers much at such times, gelseminum and caulophyllum may be added to the doses given at this period.

Lobelia, gelseminum, bromide of potass, in combination, make a good general formula in any form of epilepsy. The viburnum op. may be added to this with benefit. There is no single remedy that I have more confidence in than the viburnum, but it must be given in *large* doses and be a good and reliable preparation of the drug.

When we are done we are obliged to admit that the treatment of epilepsy, of whatever character, is very unsatisfactory and uncertain, being only palliative at most, and often fails of this to any extent. Let us hope, however, that time may yet unfold the hidden mysteries of this affection, and that we may yet know and understand its true pathology. Then, and not till then, shall we be able to treat it with positive success.

DYSMENORRHEA.

BY M. F. MCTAGGART.

This distressing and painful disease is a highly congested condition of the secreting membranes of the uterus. In consequence of the congested state the os becomes contracted, and, as the pent-up fluids seek escape, the irritation increases until it involves the uterus in an effort to expel its contents. At the first attack it generally results in but a small portion of the fluid oozing out, when, at the subsidence of the pain, the discharge becomes more copious, but at each succeeding effort at expulsion there is a recurrence of the pain, while its severity is only mitigated in proportion to the amount discharged.

Locock says: "In some instances the discharge is more profuse than natural. During the whole continuance of the pain it is apparently expelled in gushes, and is then usually mixed with coagulated blood."

In these cases (which are very rare, I presume) but one

has come under my observation. In this patient I did not find the uterus to present symptoms of such a highly congested condition, nor the pains to be so severe as when the discharge was deficient. He also says: "In a few more rare cases the pain will only occur in the latter part of the menstrual period, accompanied either with a diminution or an increase of the flow, and ceasing only after every vestige of the discharge has passed off."

This would, indeed, appear difficult to account for if we are not justified in regarding the deficiency or excess of flow as the irritating cause.

I have known the congestion to assume such severity as to pervade the body of the uterus itself, and that to a degree bordering upon serious inflammation. In two instances in my practice, the cervix was so constricted and in another the os was so contracted and congenitally small, as to necessitate dilatation by mechanical interference. The pain at first assumed the character of mild labor pains, resembling them in paroxysms, duration, and recurrence. During the intervals there was severe pain in the loins, back and pelvis, with a distressing bearing down and a noticable descent of the uterus. These pains varied in extent and increased in severity till they became agonizing, and at length produced convulsions.

The production of this disease is assigned by some writers to causes pointing to it as a local affection. We know the immediate cause is the morbid state of the uterus, but it is the condition of constitution that engenders it, and it is this which is of vast importance to look to. Impaired nutrition, irritability of the nervous system, obstruction of the secretions, innutritious diet, irregular habits, etc., all conspire to induce this disease.

As to the treatment; to treat it locally, the indications are obvious. Assuage the pain. allay congestion, and aid the uterus to expel its contents; to effect this I have found the following prompt, potent, and effective: \mathcal{R} Morph. sulph. grss., glycerine \mathfrak{z} v., Viburnum Opulus \mathfrak{z} iss, aqua dist. q. s. ad \mathfrak{z} iv. One teaspoonful every half hour to miti-

gate the pain. Place the feet in hot water, with mustard, give sage tea with spt. nitre, following it up with castor oil and oil terebenth in free doses. This will soon effect the object desired.

To eradicate the tendency to this disease, constitutional treatment directed to the predisposing cause must be the aim of the practitioner. *Viburnum opulus* is a valuable agent, given in two or three drop doses, seldom failing to prevent a return of the pain if administered ten or twelve days previous to the menstrual period and continued through its duration. It is well to continue its use some two or three months, in which time it often effects a permanent cure without the aid of other agents.

But there are conditions of the constitution such as is beyond my province in this space to note, and in which the physician's own judgment must guide him; that will frequently call into requisition other agents as auxiliaries.

EDITOR JOURNAL :—By accident I came across the May number of your journal, and noticed therein an article on Pneumonia, by M. Herzsteln, M. D., which attracted my attention, as I am a *pilgrim* and have many things to learn in regard to the peculiarities of the disease of the Rocky Mountains.

I had learned to treat pneumonia in the States after the manner of Scudder, and had thought the anti-phlogistic treatment unnecessary, and almost always harmful, but upon coming to this territory, found most physicians using and depending on anti-phlogistic methods. Dr. Whitford, whom I have succeeded in this place, is an old time eclectic, and when I first saw him giving emeto cathartic doses of podophyllin, was prone to ridicule him for an old foggy, but when I investigated the character of the cases and their apparent cause, I was led to consider more earnestly his methods of treatment.

I tried in quite a number of cases to utilize my small doses, but found that nothing less than thoroughly stirring

up the secretions after the manner of Jones and his contemporaries would give relief. Many times when podophyllin seemed contra' dicated it could be given with impunity, and was the only remedy that would bear favorably upon the disease.

All this experience pains me severely, after supposing that we had made such advances in pleasant and direct medication, to go back to emeto cathartic doses of podophyllin, etc. Unfortunately, I am not aware of the Doctor's residence who wrote the article above referred to, but if he would treat his pneumonic cases in Montana as he recommended, he certainly would have a very large mortality. But it is not my object to instruct, but to be instructed, and it is my wish and particular motive in writing this communication, that physicians who have had extensive experience with mountain fever and pneumonia would reply through the JOURNAL, as regards the cause, and why so great a difference from diseases of similar names in middle states, and most important of all, the best treatment to be adopted in these cases.

EDITORIALS.

CONJUNCTIVITIS.

Simple conjunctivitis is an inflammation of the transparent membrane covering the anterior portion of the eye and lids. A large proportion of all the diseases of the eye are embraced in this form. The conjunctiva being the outer layer of that part of the eye which is visible, is susceptible to the effect of irritating particles, poisonous gases, cold winds, intense light, foreign substances, and pressure; all producing irritation, which is subsequently followed by inflammation.

Upon inspection, you may readily observe the sclerotic, once white and glistening, covered with numerous blood vessels. There is increased lachrymation, and the eye experiences a sensation similar to that where sand is present; though it be only pressure from the enlarged blood vessels, it causes intense pain.

The treatment is simple. If foreign bodies are the cause, and

yet remaining, remove them. The conditions always existing are readily benefitted by a lotion of one grain of the sulphate of zinc, one of the sulphate of morphine, and one ounce of rose water; three or four drops, applied to the eye every three hours, removes the pain, constricts the vessels, and benefits the disease.

When the tears are of a muco-purulent consistency, the condition indicates a different form of conjunctivitis, and likewise treatment.

TRACHOMA.

Granulation of the lids is often a subsequent result of purulent conjunctivitis. It affects that part of the conjunctiva which lines the lids, and is easily discerned by the numerous granulations. Some large and some transparent, are accompanied by a watery secretion; others, vascular and red, are covered with a yellowish gray matter.

This matter, after remaining in contact with the cornea, softens its coats, forms an ulcer, and is frequently followed by staphyloma.

If the disease is not properly treated, adhesion may take place between the lid and the eye.

Invariably a patient, who is susceptible to this disease, requires alteratives and tonics, good ventilation and nutritious food. The granulations, when large and gelatinous, cause severe pain and should be at once removed, by the knife or scissors; and followed by an application of sulphate of copper crystal, to destroy their growth, that by a subsequent application of three grains each of sulphate of copper and zinc a healthy surface is speedily produced. The vascular, or red granulations require the application of sulphate of copper or nitric acid. Preference is given to the latter, for its effects are more rapid and less irritating. It should at first be absorbed in a flat piece of wood, and then applied to the granulated surface. In a few hours a perceptible contraction occurs in the vessels; the supply of nutritive material is repressed, and finally the highly vascular mass disorganizes. This application should be made daily for three or four days, afterwards a lotion of the sulphate of zinc (grs. ii to I $\frac{3}{4}$) is a sufficient astringent to prevent their return.

CORNEAL OPACITY.

Ulceration and inflammation of the cornea, frequently termi-

nate, in its opacity. Diseases which debilitate the system are often followed by a slight opacity; those that we most frequently meet are the results of inflammation and wounds.

Its diagnosis would apparently seem easy, but quite to the contrary; the practitioner has to take many precautions, or he will confound it with cataract. Looking directly in a gray or blue eye, it is difficult to distinguish a difference in the diseases. Only by a lateral view of the cornea, and assistance of a glass, can he be certain in his diagnosis. A lateral view prevents all possibilities of mistaking this condition for a cataract.

Wounds and ulcers generally leave a cicatrix, or opacity which is almost impossible to benefit. Yet, often in young and healthy people, it is remarkable how soon such an opacity disappears. An universal opacity, caused by inflammation, is that which we most dread. If not allayed in its precursory stage, a loss of sight will be the consequence. We first observe a slight haziness similar to a glass bedimmed with the breath, each day becoming more and more opaque. For this condition, liquor plumbi two drachms to four drachms of water applied every two days, has met with good results, and the bedimmed cornea soon returns to its usual transparency.

CALIFORNIA MEDICAL COLLEGE.

The second regular course of lectures in this College commences on Monday, the first day of November next. From the encouragement we have received, not only from every State and Territory on the Pacific coast, but also from States beyond the Rockies, we have every assurance in announcing to our friends that we shall have a large class during the coming session.

We have every facility for teaching and demonstrating lectures, with a full and able corps of professors, fully up to the times, and capable of imparting whatever is new and useful in medicine and surgery.

We teach no special pathy nor ism, but a system of medicine and surgery based on science and observation. We have no creed but that of TRUTH. Placing theories, methods and remedies on the scales of physiological truth and clinical fact, we accept that which is true and reject that which is false. We accept truth from any source, no matter how humble, and reject

error, no matter how high. In the words of our motto, we are "not bound to swear to the dogmas of any master."

Oakland is the most pleasant city on the Pacific coast, and the great educational center. Her university, military, theological, medical, private, and public schools, are second to none. Young men and women who desire to study medicine, will find this city a quiet, intellectual place, free from the vices and temptations of the larger metropolis. We guarantee superior accommodations, equal facilities, and the best system of medical education.

Our term of lectures is longer than is required by other Colleges on this Coast, or many of the Eastern Colleges, but it is none too long for those who desire to lay a good foundation, and prepare themselves thoroughly for a reputable and successful practice. The days of grinding out doctors of medicine in a few months has gone by. This age requires cultivation, and a higher standard of education to merit success.

The California Medical College is no place for those who simply want a diploma. Candidates for that honor, must be possessed of character and dignity, and fully qualified in every detail of the profession. Those wishing a complete medical education, that shall embrace the various theories of practice, and the newest discoveries, will find this institution all that could be desired.

SELECTED.

The Effect of Fasting on the Pathological Condition of the Blood.

The experiment of Dr. Tanner's fast has not only been serviceable to science during the time the fast lasted, by giving some interesting data in regard to the waste of the system, but it is useful even now, for days and weeks after the fast, by showing how gradually the condition of the blood, which had become frightfully deteriorated, is improving from day to day, and only after several weeks will be restored to its normal condition, while the manner of this restoration is beautifully revealed by the daily microscopic inspection of the corpuscles.

It has been reported in this journal how, at the close of the fast, the corpuscles were found to be affected by fungoid spores, and how their average diameter had shrunk from one 3600ths of an inch to one 5-thousandths of an inch; how many of them were ragged in appearance, some of them partially destroyed,

and most all in a condition of disintegration, from the effect of the fungoid growth which flourished at their expense, while scarcely any normal corpuscles were to be seen.

After the close of the fast the blood was almost daily examined, and a gradual improvement noticed, which, however, was not as rapid as expected. The details of this improvement were, that at the second day already some normal and smooth corpuscles were visible, while the fungoid spores on others were diminishing; by far the greater number of corpuscles were, however, still covered with the fungus, and many were seen of which the substance was partially wasted, mere fragments of corpuscles, some of which fragments were, however, free of fungoid growth.

The question naturally arose, Will the affected corpuscles go through a healing process, and become normal again? or will they be gradually eliminated from the system while new ones are formed? Subsequent careful investigation has answered these questions, by showing that both processes are going on at the same time. It appears that a gradual decrease in the fungoid growth is taking place, corpuscles being seen in all stages of this decrease, from the most strongly covered to the perfectly clean ones, among which, by the way, there were many imperfect corpuscles, as above remarked. Such must necessarily be eliminated from the circulation, and their place supplied by new corpuscles, and a careful search for the latter revealed them after the sixth day. They were considerably smaller than the others, but very perfect, and when carefully observed by a good illuminator, showed the freshness of youth in their whole appearance. This verifies the observation of recent investigators, who state they have observed such young growing corpuscles, while it has been denied by others, for the simple reason that they did not see them.

Let me be allowed to enter here a protest against such negative testimony, of which there is altogether too much in the medical profession. Almost daily we see such and similar denials, made by men who imagine that if they do not know a thing, or are unable to observe it, they may take advantage of the authority obtained by years of practice, and throw cold water over the investigations of younger men, and scornfully ridicule new discoveries as new notions without foundation.

I remember the time that the majority of the medical profes-

sion denied the existence of the sarcoptes scabies, notwithstanding microscopists discovered it about 1770. It was the same in later years, when Prof. Owen announced, in 1839, the discovery of the trichena spiralis, and afterwards other similar discoveries, such as the distoma hæmatobium, the origin of the tæniadæ and other parasites. Even more than a century ago, the great Buffon denied the complexity of organization of infusoria, considering them as merely cells of very simple construction, while he denied the correctness of Leeuwenhock's drawings of the spermatozoa, which we at present, with our highest powers, can verify as wonderfully correct, and so vindicate old Leeuwenhock's reputation as a conscientious observer. All this was for the simple reason that Buffon did not possess a microscope adapted to see such objects.

At the present day we see a repetition of similar controversies. Cohnheim, of Kiel, discovered that the white blood-corpuscles could give origin to pus, and this was corroborated by Dr. J. G. Richardson (see *American Journal of Medical Science*, Jan. 1870), and indorsed by Huxley (see his lecture on Protoplasm). In Dr. Tanner's blood the white corpuscles were, at the end of his fast, found to be more than quadrupled in frequency, and this appears to suggest a tendency to running sores and pus secretions, so very common in starving individuals; surely a wound in his body would not have healed at first intention, but have given rise to suppuration, considering the morbid condition of his blood and the frequency of white corpuscles.

The theory of Cohnheim was severely attacked by all who did not succeed in seeing what he saw; foremost among these was Prof. Rolman Belogh, of Perth; but the latter was set right, and Cohnheim vindicated by no less authority than Dr. Bastian, of London, and Col. Woodward, Surgeon U.S.A., in Washington.

So we do not doubt but the observation of the newly-formed, still small and growing red corpuscles is correct, notwithstanding it has met with an emphatic denial from those who had no opportunity to observe it. Dr. Tanner's case gives the opportunity for such observations. If only the observations in the changes of his blood were all that his fast has done for science, it must be considered as a valuable contribution.

A very suggestive deduction was made by repeatedly drawing

blood from his body in different ways. The deduction was suggested by the so very different appearance of the samples drawn the same evening; some were almost as bad as at the end of the fast, while others were very much better. This suggested the idea that the blood in the deeper-laying channels might be in better condition than in the capillaries close to the skin. This was verified by making very small punctures, so as scarcely to draw blood, and then forcibly squeezing out some of it for the microscopic slide. Such blood was always found to be defective, and most of the corpuscles covered with fungoid growth. Then the blood was partially impeded in its return to the heart by a bandage, and when the member was swollen, a deep puncture was made, from which the blood flowed freely; the blood was always in far better condition, and in this blood the restored and young corpuscles were frequently found.

P. H. VAN DER WEYDE, M. D.

The Physiological Action of Fatty Inunctions.

BY W. K. HARRISON, M. D.

The use of oily inunction in the treatment of disease has been in vogue from very early times. The anointing of the sick with oil is mentioned in the Bible and in many other ancient writings, and is advocated by medical authors from those ancient days down to the present time. From observation and inquiry, I am inclined to believe that fatty inunction is practiced more by eclectics than by other schools of medicine. It is undoubtedly attended with good results, and must be based upon sound physiological principles. In the febrile conditions of children, where there is a harsh, dry skin, loss of appetite, rapid pulse, great thirst, etc., fatty inunctions are often followed by a rapid amelioration of the symptoms, and in two or three hours' time, the skin is found to be cooled and soft, and a quiet, comfortable sleep is the result. Experience teaches us to expect great benefit from the external use of fats in scarlet fever and measles, with high temperatures, and these are the diseases in which they are commonly recommended, but they are not a whit less useful in other febrile conditions. In the summer diseases of children, where there is fever accompanied with disturbances of the alimentary canal, fatty

inunction not only mitigates the fever, but also lessens intestinal irritation in a marked degree.

From actual experiment with the clinical thermometer, I am convinced that the external use of fat alone will often cause a reduction of from one to three degrees in temperature.

The reduction of temperature may be explained upon physiological grounds. Dr. Routh says,* there is probably in all animals, particularly young animals, a certain amount of cutaneous respiration, *i. e.*, some action between the oxygen of the atmosphere and the capillaries of the skin. The way in which the process is carried on, I do not presume to explain. If, however, this external communication with the oxygen of the air be cut off, the temperature falls several degrees. Becquerel and Breschet† found that the temperature of rabbits, which had been first shaved and then covered with varnish, fell in an hour from 100° to 76°, and in one instance to 69½°. An inunction of fat cuts off the oxygen of the air less perfectly, and the fall in temperature is less marked, yet its antipyretic action is decided, and may be utilized with great benefit in cases where remedies are not well received by the stomach, or in conjunction with such remedies. A therapeutic measure so simple, rational and harmless, is worthy of more extended use.

Diphtheria.

EDITOR MEDICAL BRIEF:—Much has been written upon this subject and still there is but little unison in the method of treatment. The great difficulty lies in diagnosing the disease. A membranous exudation is the only sign of the disease; if such be present we have diphtheria, and if not seen then it has either been overlooked or the diagnosis is false. Membranous exudation in the fauces and pharynx is never superficial to the mucous membrane. The depth to which the exudative process may penetrate the epithelial layers varies greatly, and on this depends the gravity of the constitutional disease.

In ordinary pharyngitis there are whitish patches of pultaceous follicular secretion or ulcers covered with white or gray mucus. A stream of water will wash them away.

*Infant Feeding, p. 233.

†Carpenter's Physiology, p. 646.

In follicular tonsilitis the diagnosis is more obscure. Mucopus may be seen flowing from and surrounding the lacunel orifices or a whitish or grayish patch of inspissated material, covering and concealing several of the orifices and intervening mucous membrane. These patches vary in size from a three-cent piece to a ten-cent piece. They are firm and bear a striking resemblance to a diphtheritic membrane; or, the whole tonsil may be covered with a thick and firm investment of this character; or, again, there may be patches one above the other. When this membrane is washed off with salt and water we find the unimpaired mucous membrane beneath.

The treatment which has been most successful in my hands has been the exhibition of sulphurous acid and chlorate of potass, together with the frequent washing out of the throat and nose. My recipes are :

R. Acidi Sulphurosi.....4 drachms.
Aq. dist.....ad 4 ounces.

M. Sig: A teaspoonful every two hours.

This is alternated with ;

R. Chlorate of Potass.....2 scruples.
Glycerine.....4 drachms.
Lime Water,.....ad 4 ounces.

M. Sig: A teaspoonful every two hours.

From the inception of the disease whisky and nutrient are to be freely given; and I candidly say that were I limited to the use of one article I should choose the whisky. It is surprising the amount of stimulants which can be taken by a child when suffering from the disease.

I use a Richardson Spray Producer or a Rumboldt Atomizing Tube to keep the parts clean.

R. Carbolic Acid.....20 drops.
Lime Water.....8 ounces.

M. Sig: To be used as often as necessary.

Frequently as an adjustment I insufflate sulphur through the nose and on the pharynx with great benefit. The spread of the disease can in many cases be prevented by atomizing:

R. Vaseline.....2 ounces
Glycerine4 drachms.
Carbolic Acid.....1 drachm.

M. But this can only be done by a Rumboldt's Atomizing Tube.

J. H. EGAN, M. D.

Pulaski, Giles Co., Tenn.

Is Specific Medication a Fallacy?

Is Specific Medication a fallacy? Is this theory, so beautiful in its details, so enchanting to the inexperienced, inspiring the student trained under its teachings with the confidence that disease will invariably yield to its practical application, confirmed by clinical experience? Does not this infallibility dogma of medicine bear unmistakable evidence of perverted imagination? Are its claims—"that certain well-determined deviations from a healthy state will *always* be corrected by specific medicines," said specifics to be given in the form and dose prescribed by its author—as practically true as we should like them to be? Is requiring a belief in this theory as one of the candidate's credentials for admission to all the rights and privileges of a medical society, said society claiming to be an exponent of liberal medicine, in accordance with the broadmindedness so typical of liberal physicians?

These and other questions of relative importance to our subject will be briefly presented for your kind consideration.

Our watchword, as physicians, should be "*Truth*," and every effort in our power ought to be made for its development, thus eradicating much error. This truth may become the beacon light along the mysterious coast of medical investigation, that others, drifting on the tide of fond imagination, may see its signal light warding them off the dangerous shoals of medical fallacies. Truth relieves the darkest doubts, and her light is one ever to be trusted. It is not a deceiving glare, like the "*Will-o'-the-wisp*," whose radiance disappears as the deepest mires of investigation are reached.

How differently do things appear when seen in their true light. This has been my experience with the theory of Specific Medication, as revealed by practical application.

Specific Medication, as taught, is presented in such glowing terms, its merits so emphatically stated, its infallibility so fully assured, that the inexperienced is forced to

the conviction that with these specifics he can go forth to battle with the greatest enemy to human happiness—*disease*—only to realize a sure and easy victory. He is made to feel that the way is so plain, that, given a symptom of disease, by applying the specific it disappears as surely and quickly as the devils did from the man with the unclean spirit, to be driven by the word of the Lord into the herd of swine.

But how about all these pretty teachings? Why this sudden disappearance of our beautiful vision when we come to make a practical test? Alas! does the charm of specifics vanish from our mind, as in the aggregate of the cases treated according to this theory, the result first astonishes, when we note its repeated failure; secondly, alarms, when we realize the danger of depending upon its *sure cure policy*; and lastly, disgusts, that so long we should have fondled such an absurdity. We turn from the scene and feel thankful that experience has revealed the truth, thus directing our minds to the study of a more rational system of medicine, saving our specifics, so-called, for placebos, as they work best when least needed.

By the word specific is meant, according to Webster, "A remedy supposed to be infallible." Therefore, Specific Medication literally means infallible medication; or a system of medicine which counteracts the maladies of mankind, as each symptom presents, by a certain specific given in a definite form and dose. The supporters of this theory claim to have discovered the specific action of drugs, whose influence when singly applied exert more beneficial effect than in combination, or in the so-called "shot-gun" style, as they act directly and surely.

Is this so? Have we arrived at that exactness in our scientific knowledge of drug action, that we know the true specific value of our remedies? Do we witness that infallibility in the effect of remedial agents that we can honestly call them specifics? Is not this theory of Specific Medication an Utopian dream, which all wish to believe,

and concerning which we are ready to exclaim, "Would that it were so?" But, alas! how soon does experience destroy the poetry of an illusion.

Do we not find in every-day practice, following the thought of specifics, that what will influence one patient who has a certain chain of symptoms, does not affect the next person we meet in similar conditions; also, that the same patient cannot be treated alike at all times, though suffering from similar departures from health? How, then, can we be so blind as to rest our faith in a particular mode of administration of remedies, because on such method is based the theory of their reputed (better say disputed) specific action? Can we conscientiously prescribe them to patients, with the assurance that they will surely cure such and such symptoms if administered, though we may never have seen the patient, said special symptoms being the one important consideration? Is not this statement verified by the fact, that the author of this theory invites you, doctors of the healing art, to refer your perplexing cases, with their symptoms, to him (providing you know anything about such things) when he will send you the names of the specifics that will cure your patients.

Bear in mind, that the remedies used as specifics do not differ from those employed by all sound-thinking physicians to-day; therefore, it is not the remedy, but the specific action or positive effect that marks this as a new departure. Aconite, gelseminum, belladonna, veratrum, etc., are remedies used by all faiths of medicine to-day, though the best form of administration and the most expeditious amount of dose, still perplexes the medical mind.

Again, Specific Medication claims that the administration of medicine singly, or for their specific action, is more rational than compounding them or making what is denominated the "shot-gun" prescription. They must be given singly to get their true specific value.

Let us look at this. In Prof. Scudder's treatise on Specific Medication, page 295, in the article on "Treatment

of Disease with a Single Remedy," he says: "Here quinine has everything that is good—sedative, diaphoretic, diuretic, stimulant, tonic, a remedy for the lungs—the one thing necessary." How does this differ from the "shot-gun" prescriptions, so-called? The one, a definite remedy given with a number of actions; the other, a number of remedies given, each for a definite action. Look through this work on Specific Medication, and do you not find that the remedies, as a rule, have more than a single action ascribed to them? In speaking of aconite, he claims for it "stimulant and sedative properties: Belladonna is stimulant to the capillary circulation, specific in incontinence of urine, specific in diabetes insipidus, and has *other special* uses. Gelseminum exerts a special influence on the brain, and to a less extent upon the spinal centers, and sympathetic. It has other special actions." Thus I might cite until I had filled pages, but these will suffice to illustrate the fact, that these specifics are claimed to have more than one specific action. But why does he not define "*the other special action?*" Which action is the one that proves specific, or does its value depend upon the compound good it contains? Who is prepared to answer?

Again, I ask, does the author cling to the single or specific remedy theory? Does he not combine aconite, belladonna, veratrum, gelseminum, or ipecac, etc., each of which he claims to have more than one special action? Then where does the specific come in, or what is the specific action of the compound?

Is not the cry against "shot-gun" prescriptions a foolish mockery, when we find in this work of Specific Medication, page 119, a recipe of the following character:

R—Tinct. cypripedium.

Com. tinct. lavender, each two drachms.

Tinct. lobelia, one drachm.

Syrup simplex, three and a half ounces. Mix.

Upon analyzing this recipe we find it composed of twelve different ingredients. Don't you suppose he will

find, according to his convictions, random shots enough in that prescription to hit something, though the object fired at be never so small?

On page 85 we also find the following:

R—Asafoetida, half drachm.

Hydrastine, half drachm.

Aloes, ten grains.

Mix.

Make thirty pills.

Is not this compounding drugs, which is contradictory to the single or specific medication theory? Yet we find all this, and more besides, in the same book, making it a contradiction of itself. Why cry out against compounding drugs, or "shot-gun" practice, yet attribute good results to the same? Is this not inconsistency?

The dose of a remedy cannot be specifically stated, as we find patients differ much as regards the amount requisite to influence them. One patient, if not very sick, may do well enough with the specific form of medicine, five or ten drops of a specific tincture to four ounces of water, teaspoonful doses. While this does not materially assist nature in her effort to throw off the indisposition, yet it does not interfere with the *Vis Medicatrix Naturae*. But he who needs your aid may require as much at a dose, of a reliable fluid extract, as the former contained in the whole amount. Each and all of us believe in giving as little medicine as will effect our object, but who that is alive to the interest of the patient, thinks of relying upon medicines watered to impotency?

Does Specific Medication teach us anything new in the administration of small doses, that Homœopathy has not already handled with more grace? Certainly not.

In order to use Specific Medication successfully, it is claimed that we must be familiar with Specific Diagnosis. A thorough study of the anatomy and physiology of the body in health and disease, is one of the pre-requisites of a medical education, and no one is considered competent to commence the study of Therapeutics until he has thor-

oughly mastered these fundamental branches of the science of medicine. Pathological anatomy presents the same facts for the medical student, whether studied by Allopath, Homœopath or Eclectic, and the facts deducted from these researches, which so materially aid us in the correct diagnosis of disease, are alike for all the same. What then is meant by Specific Diagnosis, and does it differ from the commonly accepted sense of the term, diagnosis, which means "the art of discriminating disease?" Does the author of this work wish us to believe that he has surpassed the thought of the medical world on this subject, and defined a course whereby we may more clearly discern morbid action, than that accepted by science? Are not all truly educated physicians capable of making a correct diagnosis, therefore are they not able to appreciate the value of the specification of a drug, to antagonize morbid action if they find it, whether or not they have read Specific Diagnosis? Why is such stress laid upon "Specific Diagnosis?" The principles laid down in it do not materially differ from thoughts held by other medical writers; take for instance, "Williams' Principles of Medicine," where you have all these principles as clearly and definitely defined.

We find, gentlemen, that these two books, Specific Diagnosis and Specific Medication are dovetailed together, to lead one another along the path of medical fame, and like the old adage, of the "blind leading the blind," they fall together into the pit of medical absurdity.

In volume VI. of the Transactions of the National Eclectic Medical Association, Prof. Scudder, speaking of the past, in his article on Eclecticism in Medicine, says: "But a time came when Eclectics began to defer to authority, and when they commenced to flatter themselves that they had the best system of medicine under the sun. Then physicians were referred to Beach, to Morrow, to Jones, to King, to learn medicine, and if one chanced to go outside of these worthies, he was denounced in unstinted language.

Eclecticism was crystalizing in the same rigid forms as its predecessor, and was becoming as lifeless, though hardly so cruel." How does this compare with the provisions in the by-laws of the newly organized society in Tennessee, which declares that "no physician shall be received as a member of this association unless he is known to be Eclectic, and a strong supporter and advocate of Eclectic medicine and Specific Medication, as taught by our reputable medical colleges."

Does this not very closely resemble the "chrystallization" denounced by Prof. Scudder on the one hand, yet encouraged on the other, when it gives backbone to his hobby? As yet we have nowhere seen that he has come boldly out and said, "Gentlemen, my Specific Medication I believe to be a good thing, and I wish you to try it;" but he strives to force its acceptance without giving it a chance to stand on its own good foundation, which is contrary to the true principles of Eclecticism. He rejoices that the Specific Medication theory has received the endorsement of some physicians to that extent that they disregard the true principles of liberal medicine, and become exclusive in their faith and practice, or else he would cry out against such action.

Choose from all sources the best, is the broad platform of liberal medicine. If you are convinced by experience that Specific Medication or any other medication is good, you have the right, the privilege, to use it; but if you feel that they do not answer your purpose, you have the same right to disregard them. Yet you are just as true an Eclectic in either case, and no one has the power to call you otherwise, because of your belief or unbelief, so long as you use the good and discard the bad.

The Tennessee society has taken a step that it will be forced to retract, or else fall out of the ranks of pure Eclectics, and be branded as unloyal members of the liberal profession of medicine.

Gentlemen, I have no apology to offer for this criticism,

other than the fact, that I believe liberalism forces one to speak his honest convictions, regardless of fear and uninfluenced by favor.

I, as a student of the Eclectic Medical Institute of Cincinnati, was educated in the belief that Specific Medication would give me a sure relief of human suffering, and the theory was so different from any I had previously heard while a student of the College of Physicians and Surgeons, that at first I was astonished that there had been found this specific action of drugs. I graduated with the belief that these specifics would surely cure my patients, and that to practice medicine with them would be a very easy and pleasant thing. I went out to meet the giant *disease*, with as much assurance as David did when he took the single stone to combat the great Goliath, but I was not so successful with the single remedy theory as David was with the single stone; yet I had just as much faith, and aimed my remedy as directly, for I had been trained by Prof. Scudder himself, daily examined by him, and finally introduced by him to the world as one competent in this theory, to which he attested by his autograph on my diploma.

As I became engrossed with professional cares, and witnessed the repeated failure of these specifics, my eyes were opened to the fallacy of my belief. I discovered that I had been looking through a glass darkly; for after the scales of delusion had fallen from my vision, and I saw the facts face to face, I discerned how little of scientific value there was in all this so-called infallibility theory of medicine.

I feel that I have done no more than my duty to the profession I represent in speaking the honest convictions of my mind. He who finds truth and hides it under a bushel, does a double injustice—to himself, because he withholds the power of doing some good; and to truth, because its dissemination means *light* to a world full of *Darkness*.—
Medical Tribune.

*Read before the Brooklyn Academy of Medicine.

Acute Rheumatism.

EDITOR MEDICAL BRIEF:—A large portion of my professional career has been spent at sea and in the army, where rheumatism constitute a large per cent. of the sick list. The results of my treatment have been favorable. I subjoin my method of managing a case:

In all cases I find it advantageous to work upon the liver, as in this disease, I invariably perceive that it is out of order and demands stimulation. I prescribe:

R. Podophyllin.....1 grain.
 Alcohol.....7 drachms.
 Ext. Arom Powder fld..... $\frac{1}{2}$ drachm.

M. Sig: A teaspoonful at night.

Or Elixir Wahoo and Blue flag....2 ounces.

Sig: Two teaspoonfuls to be taken at night.

When the fever is high I administer either veratrum or aconite, as may be indicated. Should the pulse be strong, veratrum is given; a weak pulse demands aconite. For inflammation, aconite is the remedy *par excellence*.

The Fluid Extract or Specific Tincture of same strength are my preparations. The recipe is ten drops to four ounces water of Fluid Extract, of which a teaspoonful is to be taken every hour.

To destroy the acidity of the blood I give:

R. Salicylic Acid.....2 drachms.
 Bi Carb. Potass.....4 drachms.
 Aq dist.....2 ounces.

M. Sig: A teaspoonful every three hours.

It is seldom necessary to continue the use of the above for more than twenty-four hours, as the sooner we render the blood alkaline the better. Sometimes the patient cannot tolerate the salicylic acid, owing to the gastric disturbance it occasions, and in such cases I depend upon the exhibition of nitrate of potass.

The swollen joints are to be rubbed with an anodyne and stimulating liniment for half an hour three times daily. After the liniment has been applied a poultice of mullen

leaves steeped in warm vinegar is to be placed round the joints, or a Martin's Elastic Rubber bandage wound round the limb,

Lastly, I find the exhibition of Fluid extract of Manaca in minute doses of great service. My recipe is:

R. Ext. Manaca fld.....2 drachms.

Elixir Simple.....2 ounces.

M. Sig: A teaspoonful as often as may be necessary to produce perspiration and allay pain.

The Manaca may produce headache, but it is very transitory and can be at once abated by a cup of coffee. The free perspiration it produces is of vital moment in cutting short an attack.

I have used Phytolacca and Cimicifuga and a host of other remedies, but I have found nothing superior to the method above indicated. Should any physician try it, he will find that he will effect a cure in two or three days.

J. H. EGAN, M. D.

Pulaski, Giles county, Tennessee.

On the Treatment of Jaundice.

BY HENRY COOK, M. D., M. R. C. P. FIRST PHYSICIAN J. J. HOSPITAL,
BOMBAY.

The successful treatment of jaundice is by no means a recognized fact in medicine.

The young practitioner who meets with his first case of obstinate icterus appeals in vain to his text-books on medicine for assistance in his dilemma; and his clinical experience in hospital wards will give him no very reliable data. He is directed to discriminate between the two or more less distinct classes to which his case may be relegated; and if it be one due to obstruction he is recommended to remove it, if possible, to promote the secretion of bile, and the renal and cutaneous excretions, and to attend to the symptoms which the absence of bile from the intestines may have set up, etc. While, if he is able to decide that the case is not due to such a cause, he is left under the circumstances to do the best he can.

The first task will often puzzle him, for there are cases which cannot easily be placed either exclusively in the Hepatogenous or Hæmatogenous group, and as Niemeyer so forcibly insists, every case of the former may (must he says) lead to one of the latter, from absorption of the bilary acids and the consequent disintegration of the blood corpuscles, and the formation of bilary coloring matter.

As regards remedies, his choice is chiefly between the various purgatives and cholagogues; but I think I may safely say that no very satisfactory results follow the use of either, or at any rate none so satisfactory that his experience in his first case lends him much confidence in the treatment of those that may follow.

The object of this paper is to suggest a remedy that meets many of the indications for treatment and is applicable to many, perhaps the majority, of non-fatal cases of the disease. That many cases are entirely beyond the reach of remedies is too well known for me to insist upon. The causes of icterus are multiple; but may be separated into two classes, the mechanical and non-mechanical. The former includes all those which depend on obstruction to the flow of bile from the liver, or gall-bladder; the "Hepatogenous" group, in which there is a reabsorption of both coloring matter and bile acids into the blood. The latter comprehends those causes which give rise to bile pigment in the blood from disordered or suspended function of the liver, or possibly more recondite causes, which, according to the views of Virchow, Kuhne, Hoppe-Seyler and others, bring about the charging of the blood with bile pigment from the dissolution of its corpuscles:—the "Hæmatogenous" class. It is not my intention here to enter on the discussion of this abstruse subject, it will suffice very briefly to enumerate the disordered conditions which belong to the causation of each class.

The recognized causes of the first group include, impaction of some substance more or less hard, and closure of the ducts; catarrh of the ducts or of their common orifice;

organic changes in the walls of the same; external pressure by tumors of various kinds; and the entry of round worms from the intestinal canal;* while those of the second group may comprise disorders of the viscus which suspend or destroy its function; from merely disturbed innervation (as violent mental emotion) to organic destruction of its tissues; or diseases of the system which induce grave changes in the character of the blood, as fevers, snake-poison, certain mineral poisons, or others, such as phosphorus or chloroform; and some less evident causes, amongst which may be included septic and malarial poisons.

The first class takes the pre-eminence in frequency in India, as elsewhere, whereas the second does so in gravity.

While obstruction, due to mechanical closure of the duct from calculi or inspissated bile, as members of the first group, are not uncommon, the most frequent cause in my experience is undoubtedly catarrh of the ducts, giving rise to closure more or less complete. In cases of the second class icterus, in India, is in the majority of examples the result of malarial fevers, or more rarely of recurrent fever.

In many, perhaps the majority of cases, the relegation to one of the two classes of causes is easy, but as I have before hinted it not very infrequently happens that difficulty arises. Certain cases, which are doubtless at first due to obstruction from catarrh of the ducts, may assume an aspect in which the distinctive features are lost; I believe that in these the lesion exists in the minuter divisions of the hepatic duct throughout the substance of the organ, and as a consequence bile pigment and the bile acids are absorbed into the blood, and that result which I have alluded to, as insisted upon by Niemeyer, takes place, giving rise to pathological conditions distinctive of the hæmogenous group.

In such cases there is no fulness or prominence of the gall-bladder, because little or no bile reaches it; but there

* I met with a fatal case of jaundice a few years ago in which the ducts of the liver were completely blocked with round worms, while bundles of these were found in the substance of the liver, and their movements were perceptible (on exposing the organ) through its peritoneal coat.

is generally fullness and tumefaction of the liver itself, with distinct symptoms of weight, oppression, and perhaps tenderness on pressure over its region, while, if the condition is not relieved, graver symptoms may set in, such as those which mark the members of the second group.

Similar cases, in my experience, are frequently met with, and are due to chill, the patient usually dating the commencement of his disorder from some act of indiscretion, as sitting in damp clothes after free perspiration, or lying uncovered at night in a current of air, which so frequently in Bombay suddenly changes its temperature towards morning.

In these instances the premonitory symptoms are usually these: The patient feels out of health, loses appetite, the bowels become constipated, and more obstinately so as the case goes on; the tongue furred and sticky or dry in the morning. He is more or less slightly feverish, disinclined and indeed unfit for exertion, mental or bodily, his work is felt to be unusually irksome and heavy, and headache is frequent. He has recourse to purgatives with little effect, and now notices that his motions are pale or colorless; while his urine is thick and dark. Then earlier or later he detects a yellow color in his skin, or what is more likely, his friends do so for him. These symptoms come on thus gradually (a very different history from that which holds in sudden obstruction of the common duct), and gradually intensify as more and more of the minute ducts become involved in the catarrhal conditions.

It is in such cases, thus frequently met with, that the treatment by large doses of ipecacuanha is most successful; and in clinical illustration of the subject I will give notes of three cases which have lately come under my notice.

The first (in March last) was a young and athletic man (an Englishman) who had enjoyed remarkably good health during his residence in Bombay, a period of some four or five years. A fortnight before I saw him he had remained an unusually long time in the swimming-bath, and had felt

some chill on coming out. Symptoms of malaise, such as I have given above, followed; he had noticed the absence of color from the motions for some days, and the urine was as thick, he said, as bad beer; when a friend had stopped him and declared that he was jaundiced. This had occurred a few days before, and meanwhile he had tried to treat himself with saline purgatives, but, feeling worse, had sought advice. He was thoroughly jaundiced, the color was particularly well marked over the chest and abdomen and in the conjunctivæ. The urine was charged with bile coloring matter, giving a brilliant green with a drop or two of solution of iodine, but no bile acids could be detected; the motions were white, there was no fulness of the gall-bladder and no great enlargement of the liver; pulse fifty-six, slow and full, tongue loaded, the fur being yellowish, much headache, and pain across the loins and back.

For some days he was treated with salines and podophyllin, with small doses of ipecacuanha frequently in the day, but symptoms deepened, and he felt worse, the tongue becoming dry. On the 24th I ordered forty-five grains of ipecacuanha with the usual preliminary sedative draught and sinapism, to the epigastrium. He kept down the whole of the dose. 25th, tongue less dry, head clearer. 26th, repeated the dose of thirty grains. 27th, decidedly better, no headache, pain across the back gone, tongue moist though furred, less disgust for food; bowels acted spontaneously, motions fluid and slightly colored with bile, urine clearer. 28th, repeated the dose, giving twenty grains. 29th, states that he feels much better, and looks so, appetite returning and the urine clearing rapidly. 30th, urine quite free from any bile pigment (with iodine test), stools colored, tongue clean and natural. The icteric tinge disappearing. He was now ordered chloride of ammonium with dilute nitro-hydrochloric acid, and in a few days reported himself quite well.

The action of the remedy it seemed to me was direct and unmistakable.

The second case was somewhat longer in reaching the icteric stage. It occurred in a young lady aged 18, who had resided about a year in Bombay. For some little time her appetite had been failing, she had felt listless, weary on slightest exertion, with general *malaise*. The bowels were constipated and urine high colored. On taking a somewhat longer walk than usual she returned quite knocked up. I saw her on the 15th of August; she complained of headache and nausea and of feeling generally unwell, and thought that she had taken chill from sleeping in the wind, her bed being placed before an open doorway. The tongue was coated, pulse eighty, skin cool. There was an uncomfortable feeling in the region of the liver, and on examination it was found to be enlarged three fingers' breadth below and two above its normal limits.

She was ordered nitro-muriatic acid with chloride of ammonium, and a dose of mineral aperient water in the early morning, while small doses of podophyllin and ipecacuanha were to be taken twice a day with meals. No improvement followed this treatment, and on the 20th symptoms of jaundice were observed, the conjunctivæ and the skin, especially of the face, neck, and chest, were yellow. The urine was dark colored, and gave very decided indications of biliary matter with tests. The motion was found to be quite white and clayey. She complained of nausea and vomiting after food, and was much depressed. A dose of twenty grains of ipecacuanha was given, which was retained for two hours; after which she vomited two or three times. 21st, no great change was observable. 22d, the dose was repeated, fifteen grains being administered. 23d there was some indication of improvement. The motion was colored, while the urine was decidedly lighter in color. The dilute nitro-hydrochloric acid with chloride of ammonium was resumed. 24th, the improvement more marked, urine getting clear, motion more colored, felt better, and had a slight desire for food. 26th, the urine had become quite clear, the motion was now

dark colored, and of natural consistence. Appetite had returned, the icteric appearance was rapidly declining, the liver had returned to its normal limits. 28th, felt quite well with the exception of some weakness.

In this instance two doses of ipecacuanha sufficed to restore the normal action of the liver and to remove completely the jaundice.

The third case was that of a Parsi of middle age, who had been ill for some weeks and had been subjected to varied treatment, which included one large dose of ipecacuanha. I saw him on the 27th August in consultation. He was suffering from great depression, and took a very gloomy view of his case. The skin was deeply colored, dusky, and dingy looking. Urine very dark, while the motions were white. He was unable to take food, and suffered greatly from nausea and dyspepsia. There was some fulness of the liver, but no distension of the gall-bladder. The patient was so weak and reduced, and was stated to have suffered so much depression from the dose of ipecacuanha before administered, that I hesitated in prescribing this remedy. On carefully, however, considering the reasons for and against the measure, I decided on ordering a dose of twenty-five grains, to be given with the usual precautions, and directed that should he suffer from urgent depression, stimulants were to be freely administered. He bore the dose better than was anticipated, and it was repeated on the 29th. On the 31st bile reappeared in the motions, and the urine began to clear. A third and smaller dose was given, which sufficed to restore the biliary function of the liver, and recovery rapidly followed.

These cases may, I think, be all referred to the Hepatogenous group, though the last was rapidly assuming some of the graver symptoms of the second class. In neither were there any decided indications of obstruction of the common duct, and I believe all were due to catarrhal conditions of the hepatic ducts and their minute branches.

The lateral pressure in these and in the hepatic cells doubtless had steadily increased until the bile elements had found their way into the circulation through the commencing venules of the hepatic vein, and the initiatory branches of the lymphatic system of the liver.

The beneficial action of the ipecacuanha is, I believe, exerted on the mucous membrane of the ducts, in common with the mucus membrane of the intestinal tract generally, acting first on the larger branches, and in relieving their congested and tumefied condition, permitting the gradual reinstallation of the bile current, which, slowly reaching the intestines, gradually tinges the fæces with more and more color until the normal tint is restored. The obstruction in the front being removed, the smaller branches are able to unload themselves, and when the beneficial action has reached their ultimate radicles the liver-cells clear, and the organ is again restored to function; the charged blood is rapidly depurated, and the urine once more flows freely and clearly, though some time elapses ere the pigment is reabsorbed from the tissues and the appearance of health restored to the patient. This gradual improvement, step by step, is very clearly marked during the administration of the remedy. The first full dose initiates it, and successive doses help it on until the desired effect is attained.

In cases belonging to the Hæmatogenous type, if ipecacuanha is to do any good it must commence its action from the opposite direction; either altering the constitution of the blood itself, or possibly, in some instances, acting on the liver cells (through the line of the ultimate radicles of the bile duct?), and re-establishing a function which has by some alteration in the condition of the blood been placed in abeyance.

Whether such an action is possible is doubtful. If it could be shown that the treatment so successful in the first group was applicable also to the second, it would be a great gain to therapeutics. I give a case here which would lend some color to this possibility.

The element of doubt lies in the difficulty of diagnosis. The case was placed in the Hæmatogenous class, but it possibly may have belonged at first to the other, and have been benefited in consequence of this source of origin.

The patient was a Hindu, a cloth seller by occupation, age 29, who had suffered for ten or twelve days from malarial fever at Scholapore, and had journeyed from thence with the fever on him. It was not clear when the icteric symptoms first commenced. On admission (23d January) his temperature was 104° , tongue rough and dry, with prominent papillæ, skin deeply tinged and of a dingy brown color, conjunctivæ and mucous membrane of gums yellow, urine porter-colored, thick and scanty, giving a strong reaction of bile pigment with tests, but no bile acids could be distinguished. Motions passed shortly after admission of *natural color*; pulse 115, weak and quick; liver not enlarged to any perceptible extent, no fulness of the gall-bladder. The fever proved to be Intermittent Quotidian, and ranged for the first nine days of treatment from 103° or 104° to $96^{\circ}.4$. The patient was restless at first, with delirium at night, then became soporific and dull with muttering delirium. The tongue remained dry and harsh, and the breath was very offensive. The stools were never wanting in color, the urine continued scanty, about half the normal quantity, contained no albumen, and the chlorides were in normal quantity. There was much tenderness evinced on pressure over the right iliac region. The only complaint he made during his lucid intervals was of intense thirst and much headache.

He was first treated with active purgation, cold sponging at the height of the fever, and suitable food at short intervals. On the 27th I ordered fifteen grains of ipecacuanha with the usual precautions, which he retained three hours. The vomited matter contained bile. The dose was repeated on the 29th. The tongue now became moist, and the color of the urine altered; it was orange-red rather than porter-colored. The pulse came down to eighty-four per minute

and the delirium lessened. A third dose was given on the 31st. On the 1st of February the report was: "This morning much quieter, no delirium, tongue moist, the icteric color of the skin less marked, temperature $97^{\circ}.5$." He was now ordered quinine, and there was no subsequent rise of temperature. Some delirium recurred on the following day of a mild character, and the patient was very low and weak, pulse ninety-four, very small, while the tongue had a tendency to dryness. This state was met by constant feeding at short intervals, and dilute nitromuriatic acid with bark and ether were administered. There was much irritation of the skin.

On the 4th decided improvement manifested itself, the yellow color had nearly disappeared from the skin and eyes, while the urine only contained a trace of bile pigment. From this time he steadily improved, and all symptoms of jaundice disappeared.

The distinctive features of this case differ so materially from those of the other group, that the diagnosis admitted of no doubt so far as his condition on admission was concerned; what the condition was previously I had no means of deciding. The chief patho-gnomonic sign was undoubtedly the presence of bile in the stools, undiminished apparently in amount and in the vomited matters. Whatever bile was secreted found its way unopposed into the alimentary canal. The results of treatment seemed to me almost as satisfactory as those I have previously detailed, though they were attained by slower gradations and less distinctness. I am, however, loth to attach importance to the results of a single case, and only quote it here as affording a hope that some at least of the severer cases of jaundice classed under the Hæmatogenous group may possibly be curable by the treatment which, in cases similar to those I have described, included in the Hepatogenous class, I consider to be specific.

NOTE.—Since writing this paper a case has occurred in my practice which appears to me to lend some support to

the view I have put forward of the mode of action of ipecacuanha in jaundice, viz: that its action is not solely or mainly on the intestinal tract and thence *by continuity* on the common duct, the gall-bladder and the hepatic ducts, but rather through its general action, on the mucous tract, including the gall-ducts; and that probably *after* absorption into the blood. I saw the little daughter, aged three years, of a Parsi lady, on the 2d of October. The child was unwell, listless, heavy, would not play as usual, and had lost all appetite. The bowels were confined rather obstinately, tongue furred. She had suffered from a febrile attack, attributed to cold, a week previously. I ordered saline purgatives. 3d, the bowels acted sluggishly under the influence of the aperient, the motion being white and clayey. The urine was high colored, and there was some yellowness of the eyes and skin. Ordered chloride of ammonium and phosphate of soda in full doses. 4th, jaundice more decided. Conjunctivæ quite yellow, skin distinctly so, urine charged with bile pigment and giving a green color with a few drops of the iodine solution; stools quite white. There was much nausea, and the little food she was persuaded to take was vomited. She had headache and was very poorly. The mixture was continued, turpentine fomentations were ordered to abdomen and the right hypochondrium, and a flannel bandage, etc. 5th, no better, much nausea, vomiting and prostration, was very restless at night. I determined now to try the effect of ipecacuanha in a full dose, but to give it by mouth was clearly out of the question; I therefore ordered fifteen grains in mucilage as an enema. 6th, the enema had been retained; was slightly better, urine not so greatly charged, the child brighter, motion still white. Repeated the enema, giving twenty grains. 7th, much better, urine quite free from bile pigment (by test), stools (three in number) of a bright yellow color. Appetite returning, the child asking for food. She did not vomit all the previous day. Slept well. Repeated the chloride of ammonium mixture. 8th, quite well, motions of the natural color and

consistence. The child was very hungry, in fact had a better appetite than she had for some weeks past.

In this case the remedy could have acted only after absorption into the blood, yet its action seemed as direct and satisfactory as in those cases in which it had been administered by mouth.

Ringer is decidedly of opinion "that the active principle of ipecacuanha enters the blood," and the inference is that it acts through the circulation.

It certainly must do so when it increases the secretion of the mucous membrane of the bronchi. Rutherford in his experiments found that ipecacuanha mixed with bile, and introduced into the duodenum of dogs, was a powerful hepatic stimulant increasing the secretion of bile.

By many this is considered due to its topical action on the common duct as it enters the duodenum, but if its action on the liver is ensured when administered per anum also, this cannot be its *modus operandi*. I think there is little doubt that its action is exerted after absorption into the blood on the whole system of the hepatic ducts from their commencement in their ultimate radicles to their termination by the common duct in the duodenum.

On the Feeding of Infants During the First Nine Days of Life.

Dr. Carl Deneke of Jena contributes a paper upon this subject to the *Archiv. f. Gynækologie*, bd. xv. hft. 3, p. 281. The inquiry is executed in a manner which is peculiarly clear and convincing. After a brief historical reference to the limited literature devoted to this subject in France and Germany, special reference being made to the works of Bouchaud, and Bouchut in France, of Bartsch, Kruger and Aldfeld in Germany, the author proceeds to explain the manner in which his own observations were conducted. This was as follows:—The newly-born child was accurately weighed when quite naked, immediately after it had been

washed for the first time. These weighings were subsequently repeated in the naked condition every twelve hours in some cases, every twenty-four hours in others, to determine in what relationship the increase or decrease of the absolute weight of the child stood to the nourishment taken in. After the first bath the child was clothed, and both mother and child put to rest. Food was not offered to the child until on awaking it cried for it, or until it made attempts at sucking its fingers. Before the child was put to the breast, or the bottle given to it, it was completely undressed and weighed. This weight, and also the moment when it began to drink, were accurately noted down. The child was then, in the presence of Dr. Deneke, kept at the breast until it would drink no more, and let go the nipples, or went to sleep. When the child drank only for a short time, and it was suspected that it was not fully satisfied, measures were adopted to tempt the child to drink yet more. Furthermore, the children were not put to the breast until they awakened again out of sleep, cried, and made attempts to suck their fingers, or otherwise gave such evidence of need of food as could not escape the attention of an experienced or careful mother. The weighings before and after each feeding were executed in all cases with the same accuracy as on the first occasion. If a child was artificially fed, the bottle with its contents was weighed before and after it drank, but in this case even the frequent weighings of the child as a check on the observations were not omitted. The children were fed by bottle when the mother's breast afforded no nourishment and no other wet nurse could be got. In the artificial feeding, condensed Swiss milk, diluted with twelve parts of boiling water, was used, which mixture should be about equal, on an average, in feeding qualities to the mother's milk? The weighings were executed with very sensitive balances. Ten cases thus observed are then recorded at length in tabular form, each of which cases was under observation for nine days. The tables consist of

six columns. On the first column is given the day on which the observations were made; on the second, the exact periods at which the child was put to and removed from the breast during the day; on the third, the weight of the child after it had drunk; on the fifth, the difference between the two former weights, giving the weight of milk taken by the child at each drink; and on the sixth column are given observations as to the breast drunk from, how the child behaved, whether it passed water or had the bowels moved during drinking, or whether it vomited, etc., etc. The results obtained are subsequently presented in a condensed tabular arrangement, under the headings—1st, name and weight of the child after birth; 2d, the day of observation; 3d, the changes of weight of the child; 4th, the amount of milk taken each day; 5th, the minimum amount of milk consumed at each meal; 6th, the maximum of milk consumed at each meal; 7th, the average amount of milk consumed at each meal; 8th, the percentage amount of milk consumed each day in comparison to the weight of the child's body; 9th, the number of times the child was put to the breast daily.—*Edinburgh Medical Journal*, April, 1880.

The Discovery of the Pulmonary Circulation.

M. Achille Chéreau read a paper before the Academy of Medicine in Paris, in which he showed that the true discoverer of the pulmonary circulation was not Michel Servetus, as is commonly supposed, but Colombo, of Cremona. Servetus published his book, in which he describes the pulmonary circulation, two years before Colombo's work appeared. But it is shown that Colombo had taught the pulmonary circulation for many years before the publication of his book. And Servetus was one of his pupils.